

CLAIMS

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1. A wall structure comprising: a pair of opposed members; a plurality of spaced apart studs connected between the opposed members; openings formed in respective studs; and at least one diagonal brace extending through the openings of said studs.

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2. The wall structure of claim 1 wherein the wall structure includes opposed corner areas, and wherein the diagonal brace extending through the openings within the studs is connected between the opposed corner areas.  
CA  
as at 64

3. The wall structure of claim 1 including a pair of diagonal braces with each diagonal brace extending through openings within the studs.

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4. The wall structure of claim 1 wherein the diagonal brace comprises an elongated rod.

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5. The wall structure of claim 4 wherein the wall structure includes opposed corner areas and wherein the elongated rod is connected between the opposed corner areas.  
CA

6. The wall structure of claim 5 including four corner areas and a pair of diagonal rods with each rod extending through openings within respective studs and connected between two opposed corner areas.

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7. The wall structure of claim 1 including a pair of sides and a central area disposed between the sides, and wherein the diagonal brace extends through the central area of the wall structure.

8. The wall structure of claim 7 wherein there is provided a pair of diagonal braces extending through the central area of the wall structure.

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9. The wall structure of claim 1 wherein the wall structure includes opposed corner areas and wherein the diagonal brace includes opposite end portions with each end portion being connected to a corner area through a connector.  
the slot 64

10. The wall structure of claim 9 wherein the diagonal brace is connected to the connector so as to maintain the diagonal brace in tension.

11. The wall structure of claim 10 including a spring operative to exert a tensioning force on the brace member.

12. The wall structure of claim 10 wherein the diagonal brace is connected to the connector so as to maintain the diagonal brace in tension substantially at all times.

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13. The wall structure of claim 9 wherein each connector is anchored between a stud and one of the opposed members.  
formed in

14. The wall structure of claim 9 wherein each connector includes a plate structure that comprises two spaced apart members that eventually merge.

15. The wall structure of claim 14 wherein the spaced apart members extend from the brace and merge prior to being anchored between one stud and one of the opposed members.

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16. A wall structure comprising:

12a  
an upper member;

14a  
a lower member;

for blue  
a series of spaced apart studs connected between the upper and lower members;

62  
openings provided in a plurality of the studs;

26a  
a diagonal brace extending through the openings within the stud, and wherein the openings within the studs are spaced such that the diagonal brace can extend

between opposed corner areas of the wall structure;

64  
a pair of connectors connected to opposite ends of the brace and extending therefrom to where the connectors connect to the opposed corner areas of the wall structure; and

wherein each connector is secured between one stud and either the upper or lower member.

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17. The wall structure of claim 16 wherein the brace comprises an elongated member.

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18. The wall structure of claim 17 wherein the elongated member includes a rigid shaft.

X 19. The wall structure of claim 18 wherein the shaft includes opposed threaded ends and wherein each end of the shaft projects through an opening within one connector and wherein each connector is secured to the shaft by a retainer threaded onto the shaft and which is operative to secure the connector to the shaft.

X 20. The wall structure of claim 16 wherein each connector includes a pair of plates secured together to form a triangular configuration and wherein the triangular configuration projects from the brace towards the corner area where the connector is secured to the wall structure.

X 21. The wall structure of claim 20 wherein the connector further includes a tail section where the plates come together and extend between one of the studs and either the upper member or lower member.

X 22. The wall structure of claim 16 wherein there is provided two diagonal braces, with each diagonal brace extending through a series of openings formed in the studs such that the two diagonal braces criss cross within the wall structure.

X 23. The wall structure of claim 22 wherein each connector extends from one end portion of each brace to a connection point in the wall structure, each connector including a first generally triangular shaped section and a second tail section where the tail section extends between one stud and the upper or lower member of the wall structure.

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24. The wall structure of claim 16 wherein the wall structure includes a pair of opposed sides <sup>60 or 62</sup> and a central area extending between the opposed sides, and wherein the brace extends through the central area of the wall structure. <sup>16a, 18a</sup>

103 as drawn 16  
25. A wall structure comprising: a pair of opposed members; a series of spaced apart studs <sup>16a, 18a</sup> connected between the opposed members; openings formed in a plurality of the studs; at least <sup>62</sup> one rigid member <sup>26a</sup> extending through the openings of the studs and extending between opposed corner areas of the wall structure; and a connector <sup>a slot</sup> ~~formed~~ attached to opposite ends of the rigid member, each connector being secured to a corner area of the wall structure. <sup>60 or 62</sup>

26. The wall structure of claim 25 including a pair of rigid members extending through the openings within the studs with the pair of rigid members extending generally diagonally through the wall structure such that each rigid member extends between opposed corner areas of the wall structure.

27. The wall structure of claim 25 wherein each connector includes a first section extending from the rigid member and a second section attached to the wall structure, the first section including a pair of spaced apart members and wherein the spaced apart members merge and come together to form at least a portion of the second section.

28. The wall structure of claim 27 wherein the second section of the connector extends between one stud and one of the opposed members of the wall structure.

29. The wall structure of claim 28 including a fastener that extends through the second section of the connector and effectively connects the connector to one of the studs and one of the opposed members of the wall structure.